

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/790,642	FARRELL, ROBERT G.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Cheryl Lewis	2167	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the applicant's communication received April 25, 2007.
2. ☒ The allowed claim(s) is/are 20-22, 34, 35, and 40, renumbered as claims 1-6.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application   |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>6/19/07</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance                                   |
|  | 9. <input type="checkbox"/> Other _____.  |

### **DETAILED ACTION**

1. Claims 20-22, 34, 35, and 40 are allowed. These claims have been renumbered as claims 1-6.
2. Claims 1-19, 23-33, and 36-39 have been cancelled in the amendment received on April 25, 2007.

### ***Drawings***

3. The drawings filed on March 1, 2004 are accepted by the Examiner.

### **EXAMINER'S AMENDMENT**

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with Louis Herzberg on June 20, 2007.

5. Claims 20-22, 34, and 40 have been amended as follows:

20. (currently amended) A computer implemented method for data retrieval, said method comprising assembling an ordered set of objects from a collection of objects to satisfy a query, each object in the collection being an item returned from the query, said items being in a plurality of categories, and categories selected are determined by the

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connections between said categories in a category graph, at least one object in said query including at least one of a maximum, a minimum, ~~or~~ and a desired duration, said step of assembling comprising the steps of:

searching for a list of related objects and obtaining a rank-ordered list of said related objects, said related objects being search results that match the query and are mapped to the same category or mapped to multiple categories wherein the multiple categories are connected in a category graph;

selecting any target objects from the rank-ordered list, each target object being a member of a selected subset of the search results;

mapping the related objects in the rank-ordered list into categories;

connecting the categories into paths in a graph, said graph having a node for each category and edges based upon category relationships, terminating a graph traversal of said categories based upon reaching target objects if there are target objects, and if there is no target objects then terminating said graph traversal within a proximity in the graph near the most relevant category;

choosing a best path in the graph based upon a path evaluation criterion;

selecting particular objects in categories on the best path based upon an object selection criterion;

sorting the particular objects on the best path according to a comparison function, each particular object being an object included in search results that meets the object selection criterion; and

obtaining said ordered set of objects satisfying said query.

21. (Currently amended) A method as recited in claim 20, wherein metadata is associated with an object and included in a metadata description, the meta-data description includes a role.

22. (Currently amended) A method as recited in claim 20, wherein query parameters include a plurality of desired difficulty levels on a difficulty scale, and wherein ~~wherein~~ the step of sorting uses a comparison taken from a group of comparisons consisting of: the relative position of categories in a category order, the relative position of roles in a role order; the relative levels of difficulty on a the difficulty scale, the relative duration of time-varying media on a time scale, or any combination of these comparisons.

34. (Currently amended) A method as recited in claim 20, wherein the object selection criterion is a criterion taken from a group of criteria consisting of: membership in the set of target objects, highest relevance score, membership in one or more categories on said best path, a total number of objects on said best path less than a maximum number of objects or greater than a minimum number of objects, a sum of the duration of the objects of time-varying media being less than a maximum duration or greater than a minimum duration or closest to a desired duration value, the highest ranking objects within each category, the highest ranking objects within categories

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within a proximity in the graph near the most relevant category, and any combination of these criteria.

40. (Currently amended) A method as recited in claim 20, wherein said collection of objects for said query includes at least one object being in a media format of time-varying media, said at least one object including a maximum, minimum, or desired duration.

### **REASONS FOR ALLOWANCE**

6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not render obvious to one ordinarily skilled in the art at the time of applicant's invention nor anticipate the combination of claimed elements including "searching for a list of related objects and obtaining a rank-ordered list of said related objects, said related objects being search results that match the query and are mapped to the same category or mapped to multiple categories wherein the multiple categories are connected in a category graph", "connecting the categories into paths in a graph, said graph having a node for each category and edges based upon category relationships, terminating a graph traversal of said categories based upon reaching target objects if there are target objects, and if there is no target objects then terminating said graph traversal within a proximity in the graph near the most relevant category; choosing a best path in the graph based upon a path evaluation criterion", and

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"sorting the particular objects on the best path according to a comparison function, each particular object being an object included in search results that meets the object selection criterion" as recited in independent claim 20.

The remaining claims, 21, 22, 34, 35, and 40 are dependent claims, thus these claims are patently distinct over the art of record for at least the above reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### **NAME OF CONTACT**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Lewis whose telephone number is (571) 272-4113. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

(571) 273-4113 (Use this FAX #, only after approval by Examiner, for "INFORMAL" or "DRAFT" communication. Examiners may request that a formal paper/amendment be faxed directly to them on occasions.).


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/ Technology Center (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cheryl Lewis/  
Patent Examiner, A.U. 2167  
June 20, 2007

  
JOHN COTTINGHAM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100